

What Is Claimed Is:

1. A torsion or flexion spring assembly having a uniform cross-sectional area comprising a plurality of individual rods each with a substantially identical cross-section unchanging along its length, and each having line or surface contact with at least two other rods, the plurality of rods forming at least a rod bundle held together at the ends, wherein each of the plurality of rods is round, hexagonal or isosceles triangular in cross-section and wherein the number of rods is $3n$ or $3n+1$, whereby n is a natural number greater than or equal to 3.
2. A torsion or flexion spring assembly having a uniform cross-sectional area comprising a plurality of individual rods each with a substantially identical cross-section unchanging along its length, and each having line or surface contact with at least two other rods, the plurality of rods forming at least a rod bundle held together at the ends, wherein each of the plurality of rods is octagonal or square in cross-section and wherein the number of rods is $4n$ or $4n+1$, whereby n is a natural number greater than or equal to 2.
3. The spring assembly of claim 1 wherein several rods converge with a number of rods equal to $3n$ in the center of the rod bundle.
4. The spring assembly of claim 2 wherein several rods converge with a number of rods equal to $4n$ in the center of the rod bundle.
5. The spring assembly of claim 1 wherein a central single rod lies in the center of the rod bundle when the number of rods is $3n+1$.

6. The spring assembly of claim 2 wherein a central single rod lies in the center of the rod bundle when the number of rods is $4n+1$.

7. The spring assembly of claim 1 wherein the rod bundle is substantially round in cross-section.

5 8. The spring assembly of claim 2 wherein the rod bundle is substantially round in cross-section.

9. The spring assembly of claim 1 wherein the rod bundle is substantially central-symmetrical in cross-section.

10 10. The spring assembly of claim 2 wherein the rod bundle is substantially central-symmetrical in cross-section.

11. The spring assembly of claim 1 wherein the number of rods is 19, 25, 28 or 31, and the rods are round or hexagonal in cross-section.

12. The spring assembly of claim 2 wherein the number of rods is 9 or 16 and the rods are square or octagonal in cross-section.

15 13. The spring assembly of claim 1 wherein the surfaces of each of the rods are polished or are provided with a low-friction coating.

14. The spring assembly of claim 2 wherein the surfaces of each of the rods are polished or are provided with a low-friction coating.

20 15. The spring assembly of claim 1 wherein the rods of a rod bundle are cast in a matrix body, which permits movement of the individual rods against one another in the matrix body.

16. The spring assembly of claim 2 wherein the rods of a rod bundle are cast in a matrix body, which permits movement of the individual rods against one another in the matrix body.

17. The spring assembly of claim 1 wherein the rods are held at each end of the spring assembly in a clamping of constant cross-section.

18. The spring assembly of claim 2 wherein the rods are held at each end of the spring assembly in a clamping of constant cross-section.

19. The spring assembly of claim 1 wherein the rods are fixed axially against one another at one end and, at the other end, can be moved axially with respect to one another.

20. The spring assembly of claim 2 wherein the rods are fixed axially against one another at one end and, at the other end, can be moved axially with respect to one another.

21. The spring assembly of claim 17 wherein the rods can be moved axially with respect to one another at both ends inside the respective clamping.

22. The spring assembly of claim 18 wherein the rods can be moved axially with respect to one another at both ends inside the respective clamping.